Michael O. Leavitt
Governor
Robert L. Morgan
Executive Director
Lowell P. Braxton
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

M/037/023

July 11, 2002

TO: Minerals File

FROM: Paul Baker, Reclamation Biologist

RE: Site Inspections; UMETCO Minerals Corporation; Calliham (M/037/023), Wilson-Silver Bell (M/037/027), and Deremo-Peterson (M/037/025) Projects, San Juan County, Utah

Date of Inspection:	May 1, 2002
Time of Inspection:	8:30 to about 11:30 a.m.
Conditions:	Mostly clear, 40's, windy
Participants:	Frank Barnett and Tony Bates, UMETCO; Doug Jensen, and Paul Baker, DOGM

Purpose of Inspection:

The operator requested release for the Deremo-Peterson Project, and we decided to look at the other sites since we were in the vicinity.

Getting to the sites:

To get to the Deremo-Peterson site, take US 666 east from Monticello. About one mile west of the Colorado border is a road leading north toward Ucolo. Take this road for about six miles and turn east. Follow this road for about 1.75 miles, and there's another road leading north. Take this road for about 1.3 miles, and there's a fairly non-descript road heading back west. Go on this road until it essentially ends at a fence. We were told the fence is the Colorado/Utah border, and the Deremo-Peterson Mine is the pile across the fence.

To get to the Calliham and Wilson-Silver Bell sites, go back to the Ucolo road and continue north for just under four miles to a turnoff leading east. The Calliham Mine is about 0.5 miles down this road where Wildhorse Canyon starts to drop toward Summit Canyon.

From the turnoff to the Calliham Mine, continue north on the Ucolo road for one more mile. There is a farmhouse with some outbuildings and old cars near the intersection with a road that heads east. This is San Juan County Road 360. If you drive on this road a little over a mile, there is another road (San Juan County Road 369) leading north for about one-half mile to the Silver Bell Mine. To get to the Wilson Mine, continue on County Road 360 past the intersection with County Road 369 for

about another mile. The road turns north right on the Colorado border for one-half mile, then another road leads back west and north to the mine site.

Observations:

Calliham

Photos 1 through 3 show the mine site. It has been graded to fairly gentle slopes that match surrounding topography quite well. The area was seeded in the fall of 2000, and the vegetation is progressing well. From a distance, it looks like there is little vegetation on the slope shown in Photo 1, but this slope actually has good vegetation cover considering there has only been one full growing season since the site was seeded. In my opinion, the vegetation on this site will continue to grow, and the operator should have little trouble meeting bond release criteria. There are some rills on one of the slopes, but they are relatively minor and should heal once vegetation is better established.

Wilson-Silver Bell

Some of the buildings and other structures, including power poles, erected for the mine have been left at the land owner's request. The power poles have Pacificorp labels, but according to Mr. Bates and Mr. Barnett, Utah Power and Light does not claim them and is not willing to replace them. Several of the poles leading into the mines have broken, and because they are not functional for the postmining land use, they need to be removed. There are some other poles with transformers near some of the vent shafts, and these appear to still be usable. The land owner has also requested that these be left. One of these vent shafts is shown in Photo 4.

Vegetation on the waste disposal area at the Silver Bell Mine appears to be doing very well. I am a little more concerned about vegetation at the Wilson Mine. Although it is more sparse and consists of more sweet clover than I would like to see, I believe it will probably progress and that reseeding will not be necessary. Photos 5 and 6 show the Silver Bell Mine waste disposal area.

From the Division's records, it appears the Silver Bell Mine was seeded in the fall of 2000 and that the rest of the site, including the Wilson Mine and the ponds near the Wilson Mine, were seeded in January 2001.

In Photo 6, one can see the small depressions that were made when the site was seeded. This was done with the idea that the depressions would increase water retention and vegetation establishment and growth. We could not tell that there was greater establishment in the depressions compared to outside the depressions; however, I suspect that they increase the amount of moisture held on the slopes and improve growth. Larger depressions, such as those the operator used at the Sunset Mine, may be more beneficial.

Deremo-Peterson

The Deremo-Peterson Mine was seeded with grasses at the land owner's request. Seeding was done in 1999. The north side of the waste pile is well vegetated, but other portions of the pile have scattered vegetated areas (Photos 7, 8, and 9). There was an ore pad north of the waste disposal

area, and it has little or no desirable vegetation. We were told that this area was essentially bedrock with just a couple of inches of soil placed on it. I also took a photo of a nearby undisturbed area for comparison (Photo 10). The undisturbed area also had little soil, but it may be unfair to compare a near-climax community to a site reclaimed three years ago.

We saw no signs of erosion. The slopes are gentle, and although there were not a lot of perennial grasses in some areas, there were many weeds (kochia) that would hold the soil.

Discussion, Conclusions, and Recommendations:

At the Wilson-Silver Bell Mines, the operator needs to remove the power poles leading to the mines. We will want to monitor vegetation, especially on the waste disposal area at the Wilson Mine, although I believe the vegetation will ultimately succeed.

I am fairly confident there will be adequate vegetation at the Calliham Mine, but we should still check it whenever possible.

Vegetation establishment and growth at the Deremo-Peterson site has almost certainly been adversely affected by lack of rainfall, but considering how well the two nearby sites have done, this cannot be the only reason for the lack of vegetation in this area. The site does not meet the revegetation criteria for release.

I suggest that the operator wait until fall then reseed those areas where there is minimal perennial vegetation. Because of the number of weeds that have become established, I have some concerns about reseeding, but I believe there is not enough perennial vegetation for it to spread and meet bond release criteria without supplemental seeding.

Redisturbing an area like this tends to further increase weed growth, so I suggest that the operator either not use fertilizer or minimize the amount of fertilizer used. I do not recommend that the operator use herbicides for weed control, but that would be an acceptable option. To decrease the number of weed seeds that could germinate next year, the operator might use a broadleaf herbicide on the weeds this summer before they are able to set seed. Another choice would be to wait until next spring after the reseeded grasses have germinated and established then use an herbicide specific to broadleaf weeds. Although I have seen these methods used, the results have been mixed. I am not sure how much the herbicide applications improved grass establishment.

jb
cc: Tony Bates, UMETCO
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ATTACHMENT

Photographs
M/037/023, M/037/027, and M/037/025
Calliham, Wilson-Silver Bell, and Deremo-Peterson Mines

Photo 1. Calliham Mine looking toward the waste pile. There are a few rills on this pile.

Photo 2. Calliham Mine looking from the waste pile (opposite direction as Photo 1).

Photo 3. Calliham Mine looking toward the top of Wildhorse Canyon.

Photo 4. Vent shaft near the Silver Bell Mine. The concrete pad is a compressor platform.

Photo 5. Silver Bell Mine waste disposal area with Wilson Mine in the background.

Photo 6. Silver Bell Mine. Note the small depressions in the soil.

Photo 7. Deremo-Peterson Mine, north side of waste disposal area. Note the amount of perennial vegetation compared to photos below.

Photo 8. East side of Deremo Peterson waste disposal area. Note the relatively small amount of perennial grass cover compared to the north side of this pile. The fence is at the Colorado state line, so the pile in the background is in Colorado.

Photo 9. Top of the Deremo-Peterson waste pile.

Photo 10. Undisturbed area near Deremo-Peterson Mine.